

# **EXECUTIVE SECRETARIAT** Routing Slip

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SUSPENSE \_\_\_\_\_ Date \_\_\_\_\_

Remarks:

D/ Executive Secretary  
2/3/83  
Date

WASHINGTON

**CABINET AFFAIRS STAFFING MEMORANDUM**

Executive Registry

**83-0705**DATE: 2-2-83 NUMBER: 077768CA DUE BY: \_\_\_\_\_SUBJECT: Cabinet Council on Economic Affairs - February 4, 198310:30 am in the Roosevelt Room

	ACTION	FYI		ACTION	FYI
ALL CABINET MEMBERS	<input type="checkbox"/>	<input type="checkbox"/>	Baker	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vice President	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Deaver	<input type="checkbox"/>	<input type="checkbox"/>
State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Clark	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Treasury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Darman ( <i>For WH Staffing</i> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Defense	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Harper	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Attorney General	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Jenkins	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Interior	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Commerce	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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HHS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HUD	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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Energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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UN	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
USTR	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CEA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CCCT/Gunn	<input type="checkbox"/>	<input type="checkbox"/>
CEO	<input type="checkbox"/>	<input type="checkbox"/>	CCEA/Porter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OSTP	<input type="checkbox"/>	<input type="checkbox"/>	CCFA/Boggs	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	CCLP/Uhlmann	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	CCMA/Bledsoe	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	CCNRE/Boggs	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: The Cabinet Council on Economic Affairs will meet February 4, 1983 at 10:30 a.m. in the Roosevelt. Room. Agenda and papers are attached.

RETURN TO:

☐ Craig L. Fuller  
Assistant to the President  
for Cabinet Affairs  
456-2823

☒ Becky Norton Dunlop  
Director, Office of  
Cabinet Affairs  
456-2800

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EXEC  
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THE WHITE HOUSE

WASHINGTON

February 2, 1983

MEMORANDUM FOR THE CABINET COUNCIL ON ECONOMIC AFFAIRS

FROM: ROGER B. PORTER *RBP*  
SUBJECT: Agenda and Papers for the February 4 Meeting

The agenda and papers for the February 4 meeting of the Cabinet Council on Economic Affairs are attached. The meeting is scheduled for 8:45 a.m. in the Roosevelt Room.

The first agenda item is the Report of the Working Group on Pension Policy. This is the first report of the Working Group to the Cabinet Council since last October. In recent months and weeks members of the Working Group have undertaken extensive discussions with representatives of the affected parties and with key congressional staff members in developing a series of proposals on single employer pension legislation. A paper from the Working Group reporting on its progress is attached.

The second agenda item is a report from the National Productivity Advisory Committee. Two memorandums are attached. One deals with the Committee's recommendations concerning intellectual property and computer software; the other deals with manufacturing engineering education.

Attachments

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THE WHITE HOUSE  
WASHINGTON

THE CABINET COUNCIL ON ECONOMIC AFFAIRS

February 4, 1983

10:30 a.m.

Roosevelt Room

AGENDA

1. Report of the Working Group on Pension Policy (CM#112)
2. Report of the National Productivity Advisory Committee (CM#255)

MEMORANDUM

COUNCIL OF ECONOMIC ADVISERS

January 25, 1983

MEMORANDUM FOR CABINET COUNCIL ON ECONOMIC AFFAIRS  
(CM #112)

FROM: Pension Policy Working Group

SUBJECT: Proposed Administration Position on Single-Employer Pension Legislation

I. INTRODUCTION

This report of the Pension Policy Working Group summarizes a proposed Administration position on single-employer pension legislation. Since the last CCEA discussion of this issue in September, members of the Working Group have had extensive discussions with representatives of the affected parties and with key staff members in Congress. These discussions and our own reflections on the failure to achieve approval of single-employer legislation in 1982 led us to several general conclusions:

1. A very simple bill is sufficient to achieve most of the Administration objectives and is more likely to be approved.
2. A change of the conditions for plan termination is sufficient to protect the PBGC without seeking a change in the insurable event.
3. A change in the creditor status of PBGC, although still desirable, would probably not be approved.
4. We should continue to study more fundamental reforms to ERISA, such as variable rate premiums and the private provision of pension insurance, but we should not propose such measures at this time.
5. There is a basis for broad bipartisan support of the necessary changes in the single-employer legislation. This issue should be addressed separately from other, more contentious pension issues.

This report is based on a more extensive report by an interagency task force that examined several options for each major issue. Since there is full agreement among the Working Group on each of these issues, this report presents only one set of recommended positions.

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## II. INTRODUCTION

The Employee Retirement Income Security Act of 1974 (ERISA) was enacted to remedy, among other things, the problem of employees losing their expected pensions when their employer went out of business. Title IV of ERISA was designed to guarantee most of the pension benefits of participants in a defined-benefit pension plan that is terminated.

While employers may now terminate pension plans voluntarily under Title IV, the employer is liable to a limited extent for any unfunded liabilities the plan might have at termination. In particular, Title IV provides participants vested at the time of termination a certain minimum (guaranteed) benefit based on their vested benefits. If a pension plan with insufficient assets to pay these guaranteed benefits is terminated, the Pension Benefit Guaranty Corporation (PBGC), a government corporation established under Title IV, pays them.

The PBGC pays these guaranteed benefits out of the assets of the insufficient plans (which the PBGC takes over after termination), earnings of those assets, a premium charged to the single-employer defined-benefit pension plans, and amounts collected from employers who terminate their plans. There is a separate program for multi-employer defined-benefit plans.

PBGC's claim against an employer that terminates its plan is limited to the lesser of the unfunded guaranteed benefits or 30 percent of the employer's net worth. Under Title IV, the PBGC guarantee goes into effect when the employer terminates its plan without regard to the financial status or prospects of the employer.

In most cases, a financially sound company is unable to "dump" its pension liabilities on the PBGC because the 30 percent of net worth limit will exceed the amount of unfunded guaranteed liabilities. Some financially sound companies, though, may rid themselves of weak operations and in the process transfer unfunded liabilities to a newly-formed company or weak purchaser with low net worth. If the new company or purchaser fails, those unfunded liabilities are then passed on to the PBGC without liability on the transferor company's part.

For a company in some financial trouble, the 30 percent of net worth liability limit can be an inexpensive way for the employer to avoid the obligation to make contributions required to fund the plan. To the extent such companies

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pass on unfunded liabilities to the PBGC, other employers that maintain single-employer defined-benefit pension plans must pay the cost of higher premiums. Thus, other employers that maintain defined-benefit pension plans now subsidize the weak employers that terminate their plans.

In early 1982, the developing experience with plan terminations made it clear that PBGC would need a premium increase in order to put it on a sound financial basis. The need for a premium increase is not only related to the general state of the economy but also to the rules under which a firm may transfer its pension obligations to the PBGC.

The PBGC now faces a serious revenue shortfall that will require higher premiums. Secondly, certain loopholes in existing law will continue to result in transfers of pension liabilities from ongoing businesses to the insurance system, resulting in still higher premiums unless corrected. The magnitude of the problem can be summarized by the fact that PBGC now has a deficit of about \$300 million (\$840 million in assets and \$1140 million in liabilities).

This paper presents the recommendations of the Pension Policy Working Group for dealing with the twin problems faced by the Pension Benefit Guaranty Corporation's single-employer termination insurance program: (1) inadequate premiums and (2) the ability of employers to "dump" liabilities on the PBGC. While these are the immediate problems affecting the Pension Benefit Guaranty Corporation, there are also several long-term issues relating to the fundamental structure of the PBGC. This report also summarizes the Working Group's recommendations for a general process of information gathering and reporting on the feasibility of certain options. It does not contain specific recommendations for altering the structure of the PBGC. The report also suggests recommended legislative strategy.

This report does not discuss the issue of changes in benefit guarantees on the assumption that any legislation would not reduce benefits. Nor does this report address changes in funding rules. Further, this report does not reopen the issue as to whether the \$6 premium agreed on in negotiations among the concerned parties is sufficient, even though developments since the Administration approval of this proposed premium might warrant a higher premium.

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### III. RECOMMENDATIONS FOR CHANGES IN TITLE IV OF ERISA

#### 1. The Insurable Event

Background. Under present law, an employer may voluntarily terminate its pension plan at any time. If the firm's assets are insufficient to pay its guaranteed benefits, the PBGC becomes the trustee of the plan and pays the guaranteed benefits. The PBGC has a claim against the employer for any underfunding, but the maximum amount of PBGC's claim is limited to 30 percent of the employer's net worth. If the employer refuses to pay this liability, PBGC has a statutory lien on all the employer's assets. If the employer enters a bankruptcy proceeding, PBGC has a priority claim on any remaining net worth over that of general unsecured creditors, but one below that of secured interests and the expenses of a bankruptcy proceeding.

The PBGC has identified a number of companies for which termination would be financially advantageous because the net worth limit is far less than the unfunded liabilities. The total exposure to the insurance system from such companies is estimated at more than \$3 billion. Some changes in the law, thus, are necessary to control future program costs.

Recommendations. The Working Group recommends that plan termination continue to be the insurable event. Employers with adequately funded plans would continue to have full authority to terminate such plans. Employers with inadequately funded plans, however, would be subject to the following new rules:

- (1) The PBGC would be given the power to allow an employer to terminate such plans only if the employer proves to the PBGC that its creditors would force it out of business and if the obligation of the employer to the pension plan cannot be restructured in a way consistent with the best interests of employees, the employer and the PBGC.
- (2) The PBGC, upon agreeing to a termination, would receive a lien for 30 percent of the employer's net worth and for any hardship waivers for which they did not already have a lien (but not to exceed the amount of unfunded guaranteed benefits).



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- (3) Upon terminating, the employer would be liable for the unfunded guaranteed benefits. The PBGC would be able to negotiate the structure of the employer's debt to the PBGC, including future liens. It should also be able to accept a profit interest for part of the debt. If the employer and the PBGC cannot agree, the employer would be able to go to court to seek review of the settlement proposed by the PBGC.

We wish to point out that none of these provisions prevent employers from freezing their plans in accord with existing provisions of the Internal Revenue Code (i.e., and benefit accrual but continue vesting and funding).

2. The Amount and Status of PBGC's Claims Against Firms who have Terminated Their Pension Plans

Background. As noted earlier, PBGC now has a claim against the employer for the amount by which guaranteed benefits exceed the plan's assets. The maximum amount of PBGC's claim is 30 percent of the employer's net worth. In bankruptcy proceedings leading to an employer's reorganization or liquidation, the legal status of PBGC's claim becomes important because it affects the amount PBGC may recover from the employer.

In such cases, the employer's net worth has often been low relative to the unfunded liability. Also, too frequently, only minimal assets are left, even for priority creditors such as the PBGC, because secured interests (banks and insurance companies) have higher priority claims.

While changing the insurable event would protect PBGC from ongoing employers who wish to dump their pension liabilities, it would not enhance PBGC's ability to recover in cases where an employer goes out of business. The problem is, that by the time the PBGC claim arises, all or most of the net worth has disappeared.

Recommendations. The Working Group recommends that the present law be maintained and that the PBGC continue to have a claim to 30 percent of the employer's net worth. It recommends that the PBGC's claim continue to have priority over general unsecured creditors but below secured interests and expenses of the bankruptcy proceeding. A number of reasons are behind this recommendation to maintain the amount and status of the PBGC's claim. They include:

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- (1) It would be the least disruptive for employers who are accustomed to the present system.
- (2) The system has been in operation for 8 years and PBGC has information with which it can gauge its prospects for recovery of employer liability and establish reasonable financial requirements in settlement negotiations.

### 3. Contingent Transferor Liability

Background. Under present law, liability to the PBGC for unfunded guaranteed pension benefits is attributable only to the employer maintaining the pension plan on the date of plan termination. This means that some employers have been able to shift responsibility for their pension promises to the PBGC by transferring their pension liabilities to a weak employer. In such cases, if the weak employer terminates the plan, liability to the PBGC extends only to the weak employer. The transferor firm, through the sale or spinoff, has eliminated its potential liability under Title IV of ERISA. Because a weak employer has little or no net worth, the PBGC will recover little or nothing from this employer under the 30 percent of net worth test. Consequently, the direct loss accrues to the PBGC, and other employers must pay higher premiums to make up these losses.

PBGC estimates that its net claims to date from such transfer cases have amounted to \$62 million, most of which has occurred in the past three years. As other aspects of the Title IV program are restructured to prevent "dumping" and increase the likelihood of PBGC recovery from insufficient plans, more employers may look to business transfers to escape their liability to PBGC. Consequently, the following set of recommendations are made to avoid an increase in PBGC's exposure to this type of loss.

Recommendations. The Working Group recommends that Title IV be changed in a way that an employer who transfers a business is contingently liable for 10 years. This means that if the transferee has inadequate net worth, the transferor is liable for the difference.

We also recommend two exceptions to this contingent liability: (1) if the unfunded vested liabilities of the plan transferred are less than \$500,000 at the time of the transfer, the transferor would have no contingent liabilities regardless of the transferor's size, and (2) PBGC would promulgate regulations eliminating or reducing the transferors' contingent liabilities when such an action does not increase the risk to the PBGC. (For example, when the transferee is financially "stronger" than the transferor.)

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The Working Group also recommends that the liability of the transferor (upon a transferee's termination of a transferred plan) be equal to the amount of the unfunded guaranteed benefits of the plan at the time of the transfer, less amounts collected from the transferee upon termination. Finally, we recommend that transferors be permitted to amortize, as payments to the PBGC over a period not to exceed 15 years, the unfunded guaranteed benefits in excess of amounts collected from transferees upon plan termination.

#### 4. Minimum Funding Waivers

Background. ERISA requires an employer sponsoring defined-benefit pension plans to meet certain minimum funding requirements governing the amount of money that must be contributed to the plan each year. ERISA also permits the IRS to waive all or part of the minimum requirements for a year and to require instead that the waived amount be amortized over 15 years. Waivers may not be granted for more than 5 years in any 15-year period. The IRS receives approximately 40 waiver requests per month and grants approximately 80 to 85 percent of these requested waivers in whole or in part.

The IRS now has complete discretion to waive the minimum funding requirements for an employer for a particular year, provided that the IRS determines that application of the funding requirement would be adverse to the interests of plan participants and provided that the employer demonstrates to the IRS that it would be unable to satisfy the requirement without substantial business hardship. The PBGC is currently accorded no formal statutory role in the waiver process. The final decision-making authority as to both the grant and the terms of any waiver rests with the IRS.

The granting of the funding waiver may be considered a loan to the employer from plan participants and the PBGC. However, neither plan participants nor the PBGC now have any statutory ability to set conditions on this loan, despite the fact that either may eventually suffer a loss from it. The issue is whether the IRS should be solely responsible for granting funding waivers or whether the PBGC should be given a statutory role in the waiver process in order to protect its interests in the event of an insurable event occurring subsequent to the receipt by an employer of a funding waiver.

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Recommendation. The Working Group recommends that Title IV be changed so that the IRS and the PBGC share authority over the hardship waiver. The IRS would have the authority to decide if a hardship waiver should be granted. If they decide it should be granted, then the PBGC should be able to place conditions on the waiver (such as a lien for the PBGC). The Working Group believes that such a joint decision process increases the PBGC's ability to protect its asset position without placing undue complications on the process of granting a waiver.

## 5. Fundamental Structural Reform

Over the past 8 years major problems have developed with both the single and multi-employer termination insurance programs. The recommendations summarized in this section relate to the more fundamental issues of reducing federal involvement in pension insurance in the long term and establishing a premium structure that ascribes the cost of coverage more appropriately to their sources.

The recommendations in this section are for studies of these two issues. The studies would be completed in two years and result in reports to Congress that contain conclusions as to feasibility and desirability of the two specific structural reforms mentioned.

A. The Issue of Privatization. There are increasing reasons to question whether the insurance programs performed by the PBGC should be retained in the public sector. With better information on risks and a comparatively small scale of operation, the functions of the PBGC may well be absorbed by the private insurance industry after elimination of the existing PBGC deficit. Moreover, there is an important non-technical reason for wanting to move the functions of the PBGC to the private sector. At the time that Congress set up a public corporation (required by statute to be self-financing), it reserved for itself the authority to set the premium rate. In part due to the requirement for political approval of this premium, the funding status of the single employer program has deteriorated rapidly over its brief eight-year lifetime.

Recommendation. The Working Group recommends that legislation to amend Title IV of ERISA contain provisions for a study of the privatization of the functions of PBGC. The study would be completed within two years. At that point, the study would be part of a report to the Congress containing conclusions as to the desirability and feasibility of privatizing the functions of the PBGC.

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B. Premium Structure. When the termination insurance programs were first enacted, the premium structure was not a major issue. Recent developments indicate that the proposed \$6 premium may prove to be inadequate to fund the single-employer program. Another substantial premium increase may be necessary in the event of a failure of any single major plan.

With each premium increase, the flat-rate premium becomes increasingly more inequitable for employers with well-funded plans. These employers will be increasingly penalized by paying for risks they did not create. Each rate hike will further discourage the formation of new defined-benefit plans, and give the best-funded plans a larger incentive to terminate. Developing variable rates that reflect industry and firm health, the plan's financial well-being, and the soundness of plan management would allow the cost to be better assigned to potential beneficiaries of the coverage. This would result in a rate structure that does not contain counterproductive incentives. Finally, a variable rate premium would introduce a sense of equity into the system that is not now there.

Recommendation. The Working Group recommends that as part of the amendments to Title IV of ERISA, PBGC extend its present study of a variable premium structure. The study would be completed within two years. At that point a report would be made to Congress that suggests a specific variable rate structure and its feasibility and desirability.

#### IV. LEGISLATIVE STRATEGY

The recent experience in attempting to gain approval of single-employer pension legislation suggests that there is a basis for a bipartisan coalition on these issues, but that the potential coalition is sensitive on some major issues and is quite fragile. For this reason, we have not recommended that the Administration seek approval of a general creditor status for PBGC. It is also important to address the single employer issues separately from those concerning multi-employer plans and state and local plans. Moreover, it is important to avoid any action that would force a partisan difference on the single-employer legislation.

For these reasons, the Working Group suggests that the Administration seek sponsors from both parties in the House and Senate Labor committees for a bill including the general recommendations summarized in this report. Our discussions

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with key staff members from these committees suggests that this is both possible and desirable. Rather than submitting a formal Administration proposal, therefore, we suggest that the Administration inform key members of the Labor committees of these recommendations on an informal basis and later endorse a proposed bill only when there appears to be a basis for broad bipartisan support.

THE WHITE HOUSE  
WASHINGTON

January 14, 1983

MEMORANDUM FOR THE CABINET COUNCIL ON ECONOMIC AFFAIRS

FROM: THE NATIONAL PRODUCTIVITY ADVISORY COMMITTEE

SUBJECT: Intellectual Property and Computer Software

This is the sixteenth in a series of memorandums reporting the recommendations of the National Productivity Advisory Committee for specific actions the Government can take to increase productivity.

The computer software field is one of the most rapidly growing, profitable, and potentially significant contributors to productivity growth for U.S. products and industries. Protection of individual property rights in computer software is essential to assuring unimpeded development of computer software. Better protection of authors' rights in their software will provide a stronger incentive to develop new software and to disseminate it more widely. There are three ways in which current protections can be strengthened.

Recommendation #35: The Committee recommends amending the copyright law to grant authors protection under trade secret and copyright laws simultaneously.

Recommendation #36: The Committee recommends strengthening copyright laws against piracy and counterfeiting of computer programs by including criminal penalties in the copyright laws.

Recommendation #37: The Committee recommends amending the copyright laws so that an author can copyright a detailed description of his software as well as the software program itself. Protection would extend to any program written by another author following the original author's description or program.

With the continuing growth in the use of personal and small business computers, there is a corresponding increase in the need for better computer software. The great bulk of computer software for smaller computers is written by individual authors or small software enterprises whose only incentive is the revenue from the sale of their product. Strengthening property rights in

software will improve the incentive for further development and will make dissemination more profitable. By giving greater control to the software author, he or she has better opportunities to pursue the widest possible dissemination of the software.

Protecting intellectual property under trade secret, copyright or patent statutes is well established, but provides only limited protection for the authors. Trade secret protection may be lost after a few hundred sales, or if the author obtains patent protection or seeks copyright registration. Patents are expensive and do not apply to mathematical algorithms. Copyrights protect the expression but not the substance of a program. As computers become smaller and they are used more widely, trade secret protection will dwindle further because secrets are difficult to maintain when hundreds or thousands of copies exist. Because the application of patents to software is relatively new, the Committee has limited its recommendation for improvement to copyright law at this time.

The Committee endorses the provisions in legislation (H.R. 6983) introduced in the last Congress which state that a copyright notice in a program does not constitute publication in a way that would prevent trade secret protection. It further would provide for confidential deposits of copywritten programs so that trade secrets are not revealed.

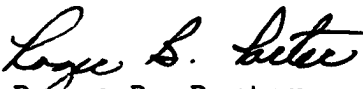
The provisions in current copyright laws for damage suits for infringement do not provide a sufficient remedy for computer software authors. Damage suits are costly and time consuming and may not dissuade those who are inclined to infringe. The potential for criminal penalties being imposed, however, would strengthen the disincentives for copyright infringement.

Extending the copyright protection to prevent copies which are logically the same but with a different physical appearance would protect both the form and the expression of the software. This treatment would be analogous to that extended to musical compositions and would prevent line by line transposition of a program from one language to another, just as a musical composition is protected against transposition into a different key. The proposal would not protect against independent creation of a similar program nor would it protect the ideas of a program, versus its expression.

The Committee concluded that increasing the protection of software would not inhibit its dissemination, but rather would assure better protection of the authors interest and, therefore, greater incentives for development and dissemination. Without better protection there will be less developed and disseminated,



and the opportunity for better use of productivity enhancing technology will be lost.

  
Roger B. Porter  
Executive Secretary

## THE WHITE HOUSE

WASHINGTON

January 14, 1983

## MEMORANDUM FOR THE CABINET COUNCIL ON ECONOMIC AFFAIRS

FROM: THE NATIONAL PRODUCTIVITY ADVISORY COMMITTEE

SUBJECT: Manufacturing Engineering Education for Higher Productivity

This is the seventeenth in a series of memorandums reporting the recommendations of the National Productivity Advisory Committee for specific actions the government can take to increase productivity.

Recommendation #38: The Committee recommends establishing a program for matching grants for schools of engineering for expanding research, instruction, instrumentation, and graduate fellowships in manufacturing engineering, engineering design, and related basic sciences for higher productivity. The Federal science and engineering agencies should fund a program starting in FY 1984 for three years at a level of 500 graduate fellowships and annual support for research and graduate training in these areas in an amount of \$50 million. Universities and institutes of technology would have to match funding one-for-one from non-federal sources.

The Committee has examined the ample evidence of engineering faculty shortages, obsolete equipment and curricula, and student overcrowding with inadequate facilities. Shortages of engineers exist, even in a recession, and the problem may get worse. The percentage of engineers in our labor force has declined since 1965, while in Japan and Germany it has doubled. In 1980 Japan, for example, graduated 87,000 engineers, 9,000 more than the United States.

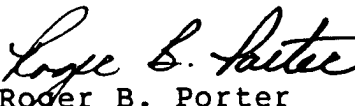
The real engineering manpower problem is not just the number of engineers but also the quality and utility of their skills, and the career aspirations of engineering graduates. In its November 15 memorandum to the Cabinet Council on Economic Affairs the Committee recommended (Recommendation #20) providing incentives for new university science and engineering faculty to

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commit to a career in university research and teaching. At its most recent meeting the Committee addressed the second part of the problem: the present engineering curricula does not do an adequate job of teaching engineers to design products for inexpensive, quality, mass production. It has not been in the innovation and invention area that other countries have exceeded United States capabilities, but rather in the productive environment that their productivity gains have made them ever more competitive with American companies.

For the last several decades, U.S. engineering education has emphasized preparation for careers in research and development. Areas vital to the achievement of higher productivity and higher quality, low-cost products, such as design for manufacture ability, process technology, and design and production automation, have been given less attention.

The Federal Government can play a vital role in meeting this productivity challenge by stimulating universities to focus on manufacturing systems technology and education. The Committee's recommendation that universities obtain matching funds is to assure that industry also is involved. Engineering schools need access to industry for their manufacturing engineering students training, and the private sector should play an important role in the education process.

  
Roger B. Porter  
Executive Secretary